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TO THE PUBLIC.

A FEW PLAIN FACTS FOR GAS CONSUMERS!

THEORY OF GOOD LIGHT.

HOW TO MAKE SMALL GAS BILLS!

One of the great conveniences of modern times is the use of Carburretted Hydrogen, or what is generally known as common street Gas, now acknowledged to be a decided luxury by all who desire a clear, clean light, over the unhealthy, filthy or dangerous employment of oil or fluid. And yet scarcely any commodity used for domestic purposes, but purchasers know the quality, quantity and proper mode of using, but for that desideratum Gas light, which to the storekeeper and artizan is indispensible, and for domestic comfort so desirable, the major part of consumers know little or nothing either of the quality of the article, the quantity necessary at each burner to secure a full, clear brilliant light, or the amount they are consuming at any given time, until their bills are delivered to them from the Gas company, and then they take it for granted they are correct or otherwise. This is most decidedly wrong, especially as the whole subject may be fully comprehended by attending to a few plain facts, sufficiently simple to enable all to avoid exorbitant gas bills, as well as many annoyances which amount in frequent cases to almost an entire prohibition of its use. Philadelphia may boast of having the finest Gas of any city, whether in Europe or America, and the constant and untiring efforts to keep it so on the part of the gentlemen employed by the several companies in this city, is far in advance of the attention devoted to it by the consumer. Those who should be the

most interested, seem to be the least devoted to the practical development of the full benefits, to be derived from the gigantic efforts put forth to give us good light. Some consumers have never so much as seen their meters, much less examined its construction so as to know the amount they are consuming; others never think it at all necessary to change the burners through which they derive their light, until they are so filthy, rusted out and delapidated, that they have lost almost all power either to aid in giving light or preventing a ruinous waste; others again have become so accustomed to burning, or rather blowing off Gas, that they think they get no light, without everything is carried out on the high pressure principle, opening all the faucets, and clearing the road for all that can be possibly crowded through the burners, and yet these parties may be the first to charge the Gas company with extortion, mistakes or intentionally cheating them in their Gas bills. Now what rules should guide the consumer in this matter? we would say first—Give as much attention to our Gas fixtures as will enable us to keep up with the constant advancements making to improve our light, or all that is done for us may be lost in a degree by our not carrying out fully our part of the work. Examine your Meter, or, at least be sure there is the proper amount of water in it, that it may register properly, or you may loose much in this respect, and destroy the intentions of it, and you have to pay in cash what you could avoid by a little attention. Again, change your burners at least once each year if you have used them much. The rich Gas of this city should be consumed through an aperture in the burner as small as possible, so as to produce a flame as thin as we are able, for, by so doing, we present not only a broad surface for the action of the oxygen of the atmosphere on the gases of which coal gas is composed, but by a thin flame a greater amount of the carbon may be oxygenised, or brought in direct contact with the elements that produce combustion. Hence, a burner with a large orafice, whether made so by rust or use, produces a thick heavy flame and waste of Gas, and consequently a great reduction of light, for the above reasons. Light is produced from Coal Gas in the following manner: Coal Gas is composed of two elements, Hydrogen and Carbon: the former a substance having a tendency, when combined with other matter, to assume the gaseous form, the latter always existing in the solid state, except when in combination with some other matter, such as Hydrogen, which has the property of vapourizing it. It will follow from these peculiar properties of the gasses in question, that if the Hydrogen be extracted from any compound of the two, the

Carbon will be liberated in the solid form, and this is precisely what takes place during the combustion of Gas. Hydrogen has a greater affinity for Oxygen than Carbon, and upon a stream of the mixed gasses ignited in air, enters first into combination, thereby producing the blue colored flame so conspicuous at the lower part of an ordinary light. The Carbon, being thus liberated in the form of particles of smoke or soot, does not, however, pass off in that form, but being heated to whiteness, gives out light, and at the same moment mixes with the Oxygen of the air, again assuming the gaseous form and passes of as Carbonic Acid Gas. It is clear, therefore, that in order to produce a full clear light the flame must be thin, and the quantity of Gas presented at the burner be just so much as to produce combustion with ease and no more; any more than this must pass off into the atmosphere without combustion, and consequently wasted to the consumer. It follows, therefore, that just in proportion as we force a large quantity of Gas through the burner, it is registered at the Meter, and precisely in that proportion is the light reduced, both in quality and quantity. To prove this, it is only necessary to open the faucet, and let on the full street pressure till it blows off, and the effect is little or no light at all. It is an established fact that a burner gives the maximum of light when it is at the point of giving off smoke, and to urge it beyond that point is to destroy all the effects of a good light. Without dwelling on this point longer, we take it for granted that two things are indispensable in the exercise of proper caution in consuming street Gas: 1st, a full thin flame, emited from a burner, demanding a moderate pressure: 2nd, a pressure reduced at the Meter, so low as to just fill the burner and no more.

It is a settled fact, beyond all dispute, that Gas burnt at a pressure of five-tenths of an inch, water pressure, will give a better light and consume 25 per cent. less Gas then when burnt at a pressure of three inches; that is, that three cubic feet of Gas, burnt at a pressure of half an inch, will burn as long and give a better light than four cubic feet burnt at a pressure of three inches.

In consequence of the great length of mains connected with Gas establishments, it is neccessary for the purpose of insuring a sufficient supply to remote consumers, to employ a force which delivers it at a much greater pressure than is advantageous for its economical consumption; and owing to the opening and closing of stores and public places, the street pressure is constantly varying from 1 inch to 3 inches water pressure. This variation acting on the burner direct,

keeps up a constant fluctuation in the pressure or light, that must result in many disadvantages, among which—a great waste of unconsumed Gas.

The Pennsylvania Gas Regulating Company was organized for the purpose of supplying the Gas consuming public with a Regulator or Governor, secured by letters patent, placed on at the meter that obviates at once all the disadvantages under which we must labor without it.

This is a most excellent apparatus for consumers, as it regulates the Gas, and keeps a uniform pressure on the burners, whether the lights be few or many, or when some of the burners are shut off before the others, for instance, when some of the lights are shut off before the others, those that remain burning, increase in flame and consume much more Gas per burner, than when the whole were burning. But not so with the Governor or Regulator. It being a self-acting apparatus, when the lights or part of the lights are shut off, it closes the delivery valve partially and reduces the supply, giving the same pressure to the burners as before, and when the last light is extinguished, the supply valve closes entirely and shuts all the Gas into the street, except simply so much as may remain in the pipes unconsumed, which will be needed to light again which, when done, a demand for supply is created, the valve passes up and just so much is delivered as required and no more. Although the quantity of Gas is considerably reduced, yet the effect is to keep up a constant uniform pressure and invariable size of flame.

It can be adjusted to furnish Gas of any guage desired less than street pressure, which, in this city, ranges from two to three inches.

That, when adjusted to any pressure desired by the consumer, the Regulator will continue to furnish Gas of that pressure, with unvarying uniformity, whatever may be the fluctuations in the pressure from the Main in the street.

That, by thus giving a reduced pressure to five-tenths of an inch, perfect combustion is produced, which removes *all smoke* and offensive smell arising from Gas consumed at a high pressure.

The excessive heat from Gas consumed at the usual pressure, is, by this invention, reduced so as to remove, in a great measure, this objection to street Gas, at least in the Summer season, which, in Halls, Churches, Concert Rooms, Theatres, Stores and Parlors, is no small annoyance in the use of street Gas.

That, when the Regulator is adjusted to furnish Gas at a pressure of half an inch, the usual guage to which we set the instrument, we

have a clear saving of *twenty-five* per cent. over Gas bills where the usual pressure is used.

That, when thus regulated, and saving twenty-five per cent. on the Gas consumed, we have a better light, of a more agreeable quality, steady and clear, without variation, and without the possibility of derangement in the instrument.

The Regulator is quite simple in its construction, easily applied at the Meter, and when once regulated requires no further attention, and, by the simplest possible change of a screw, the consumer may increase or diminish his light at pleasure.

The cheapness of the article, as to results, is another great advantage, the price varying with the size of the meter and the number of burners employed.

All complete, and warranted to be in perfect order, and will last a lifetime.

The Company would, with great pleasure, exhibit the instrument to you, and give such references to those now using it, as will establish the truthfulness of what we have said.

We are willing also the instrument should be put to any test desired, in order to develope its qualities.

The Regulator has been examined and throughly tested, by the Engineer's and Manager's of the New York and Boston Gas Light Companies, as well as the Franklin Institute of this city, and by many of our most Scientific and competent judges, who give it their unqualified approval, to all of whom reference is made. The Regulators vary in size to suit the meters, and the number of lights used.

The Company would most respectfully invite gentlemen connected with literary associations, colleges, and institutions of learning of every kind, as well as citizens of all classes interested in the consumption of Gas to visit our office, No. 69 South Seventh Street, and witness the practical action of the Regulator, where will be found all the latest improvements in Gas Fixtures, Meters, &c., as well as experimental apparatus connected with this interesting question.

The Secretary of the Company, or other persons, will always be present to explain any question that may be propounded.

To avoid imposition, each canvasser will be furnished with a certificate of his agency, signed by our Engineer, Jas. M. Brown, who gives his whole attention to putting up and properly regulating the instrument, so as to give perfect satisfaction to all.

REFERENCES.

Hon. HENRY L. BENNER, President of National Safety Fund.
S. S. MOON, Esq., Secretary of the Commonwealth Insurance Co.
Dr. THOS. S. REED, 370 South Second Street.
WRIGHT & HUNTER, Gas Fitters, Ninth and Walnut Streets.
JOHN FROST, Esq., Publisher, Minor Street.
WM. W. HARDING, Esq., Pennsylvania Inquirer.
ROCKHILL & WILSON, Clothiers, 111 Chestnut Street.
J. BISHOP, Essayer, 5 Pear Street.
SAML. R. BLAIR, Practical Gas Fitters, 6 North Seventh Street.
ADOLPH & KEEN, 30 North Second Street.
A. McELROY, Esq., Publisher of City Directory.
C. J. PRICE & CO., Publishers, 4 Hart's Buildings.
DAVID CHILLAS, Esq., Lithographer, 50 South Third Street.
THOS. R. SAGER, Esq., 89 South Third Street.

CONCERT HALL,

CHESTNUT STREET, ABOVE TWELFTH.

ONE HUNDRED AND FIFTY BURNERS.

The Regulator was placed in "Concert Hall," one of the largest and most fashionable rooms in our city, used for Concerts and Exhibitions of all kinds.

(CERTIFICATE.)

I require a full clear light to meet the wants of the various exhibitions visiting our hall. After having the Regulator fairly tested, I am satisfied in the increase and brilliancy of the light, and that it will save me 30 per cent. over former bills.

THOMAS A. ANDREWS,
Lessee Concert Hall.

Philada., July 25th, 1856.

THOMAS & SONS' AUCTION MART,

67 & 69 SOUTH FOURTH STREET.

TWO HUNDRED AND FIFTY LIGHTS.

(CERTIFICATE.)

GENTLEMEN:—We have had one of your Patent Gas Regulators applied to our store, in which we use about 250 lights, and after a careful examination, we find that we have a clear, full, beautiful light, and with the instrument on our meter we consume one-third less gas, in the same time, than we did without it. We can, with great confidence, recommend it for general use.

Yours Respectfully,

Philada., June 21st, 1856. M. THOMAS & SONS.

SANSOM STREET HALL.

ONE HUNDRED LIGHTS.

(CERTIFICATE.)

JAS. M. BROWN,

SIR:—Your Patent Gas Regulator is certainly a desideratum to the consumers of gas. I tested the instrument with 51 burners, by the hour, with the following results.

Gas consumed without the Regulator, 300 feet per hour; with the Regulator, 200 feet, showing a saving, in favor of the Regulator, of 33 per cent., and that too, without any perceptible diminution in the light.

So fully am I convinced of its utility, that I have ordered it connected with other meters in the building.

Very Respectfully Yours,

Philada., April 16th, 1856 ROBT. E. MATHEYS.

OAKFORD'S HAT STORE,

158 CHESTNUT STRBET.

FIFTY LIGHTS.

(CERTIFICATE.)

JAS. M. BROWN,

Engineer Penna. Gas Regulating Co.

SIR:—Having giving your Gas Regulator a fair trial, we are fully convinced that there is a saving of at least 25 per cent. in the consumption of Gas.

Yours Respectfully,

Philada., July 28th, 1856. CHAS. OAKFORD & SON.

ESPY'S PRESERVING ESTABLISHMENT,

109 SOUTH THIRD STREET.

SIXTY BURNERS.

(CERTIFICATE.)

I have had attached to my Gas Meter, one of your Regulators, and find that a saving of about 33 per cent. is effected through its use. The brilliancy of the light is more uniform, without any variation in the size of the flame.

Philada., June 18th, 1856. MILLS B. ESPY.

GUSTAVE BERGNER,

LARGE SALOON UNDER THE POST OFFICE, DOCK ST.

FIFTY BURNERS.

(CERTIFICATE.)

GENTLEMEN:—The Gas Regulator which I received from you about two months ago, gives me the greatest satisfaction. By comparing the amount of gas consumed, since the introduction of your Regulator, with the amount consumed in former times, I find a saving of at least 30 per cent., therefore I can truly recommend the same to every body.

Yours, &c.,

Philada., May 10th, 1856. GUSTAVE BERGNER.

DR. ANGNEY'S DRUG STORE,

CORNER OF FIFTH AND SPRUCE STREETS.

NINE BURNERS.

(CERTIFICATE.)

I have had a Regulator placed upon my gas pipes for some time, and having given considerable attention to its effects upon the consumption of gas, I am satisfied that in my case there is a saving of from 20 to 25 per cent. by the use of the Regulator.

The *quality* of the light seems improved, which together with the *even regularity* of the flow of gas, there being no perceptible variation in the quantity consumed or forced through the burners at

different times, during the evening, so as to require a turning off of the flow, are strong recommendations in favor of the Regulator. When to these is added the reduction in the amount of gas consumed, the advantages are so great, as should soon secure the universal adoption of the instrument.

J. R. ANGNEY.

HOWELL EVANS' FANCY CARD PRINTING OFFICE,

FOURTH AND LIBRARY STREETS.

FORTY LIGHTS.

(CERTIFICATE.)

Penna. Gas Regulating Co.

GENTLEMEN:—I have tried for a time one of your Patent Gas Regulators, and am free to say that I think it will prove a great saving where introduced; all gas consumers should have one. The cost of the instrument bears no comparison to the amount saved in the consumption of gas.

Philada., April 3d, 1856. HOWELL EVANS.

SMITH'S BREWERY,

FIFTH AND MINOR STREETS.

THIRTY LIGHTS.

(CERTIFICATE.)

Penna. Gas Regulating Co.

GENTLEMEN:—I have one of the Regulators for the saving of gas, on at my Brewery, also, one at my dwelling, and from a careful experiment, made by myself at the latter place, I am satisfied that there is a full saving of 25 per cent., with a good, clear and very steady light.

ROBERT SMITH,

Philada., July 5th, 1856. *Brewer.*

SMITH CROWELL,

SOUTHEAST CORNER SECOND AND UNION.

TWENTY LIGHTS.

(CERTIFICATE.)

Penna. Gas Regulating Co.

GENTLEMEN :—I have had applied to my gas meter one of your Gas Regulators for the saving of gas, and I do say that it is one of the best things that I ever have seen or heard of. In reference to economy in saving of gas, I think that it will save from thirty to forty per cent., so far as I have tested its operation, which has been some four weeks.

Yours Very Respectfully,

Philada., May 22d, 1856. SMITH CROWELL.

CURWEN STODDART & BRO.,

NOS. 278, 280, & 282 NORTH SECOND STREET.

SIXTY LIGHTS.

(CERTIFICATE.)

We have used one of your Gas Regulators for upwards of three months, and after several examinations, are satisfied that we have better light, with a saving of at least twenty-five per cent.

CURWEN STODDART & BRO.,

Philada., June 21st, 1856. *Family Dry Goods Store.*

GEO. CARELS' RESTAURANT,

NORTH EAST CORNER OF EIGHTH AND CHESTNUT STREETS.

FORTY LIGHTS.

(CERTIFICATE.)

MR. JAS. M. BROWN,

DEAR SIR :—After several weeks use of your Patent Gas Regulator, I am perfectly satisfied of its utility in economizing the quantity of gas burned in our establishment, previous to attaching

it to our meter, we averaged 600 feet per day, since then it has been reduced to 350 feet, and giving us a good and more steady light than we had before. I therefore take pleasure in giving you this testimonial of recommendation, for the benefit of gas consumers.

Yours Respectfully,

Philada., March 20th, 1856. GEO. CARELS.

EUREKA READING ROOMS,

184 CHESTNUT STREET, OPPOSITE THE NEW MASONIC TEMPLE.

THIRTY BURNERS,

REQUIRING A VERY BRILLIANT LIGHT.

(CERTIFICATE.)

We have in use one of the Pennsylvania Gas Regulating Co's instruments, and find it all we could desire. The light is clear and very regular, without any variation at any time through the night. We are frequently open till one o'clock, and are not affected by the variations of the street pressure.

Our saving, after many experiments, is full 25 per cent. over old bills.

We look upon the invention as of great value to all gas consumers.

W. H. SOUTHCOTT,
E. R. PICHLER,

Philada., July 25th, 1856. *Proprietors.*

J. BISHOP, Assayer,

5 PEAR STREET.

(CERTIFICATE.)

Penna. Gas Regulating Co.

GENTLEMEN:—Having examined your Regulator, and studied the principle upon which it works, I am happy to say that I can recommend it as an instrument that will save a great waste of Gas, and afford a much clearer light than is now obtained.

The principles upon which it operates, are such, that the whole of the gas that passes off under the pressure of your instrument, is consumed, which is not the case when the gas is burnt under the street pressure; for the reason, that there is not sufficient oxygen supplied by the atmosphere to consume more than two-thirds (⅔) of the carbon passing off in smoke.

It will afford me satisfaction, to explain more minutely, the operation and advantages of your Regulator, to any one who may desire to avail themselves of its use, as a means of reducing their consumption of gas, whilst at the same time they obtain an improved light.

I Remain, Gentlemen,

Yours Truly,

Philada., July 28th, 1856. J. BISHOP.

TESTIMONIALS FROM THE STATE OFFICERS OF NEW YORK,

AT THE CAPITOL, ALBANY, JAN. 4, 1852.

Mr. Brown,

Sir:—By request of the trustees of the capitol, an experiment has been tried in the State Library, and this day completed to test the economy likely to result from the use of the Patent Gas Regulator. 180 burners without the Regulator, in four hours and a half, consumed 2440 feet of gas; 180 burners with the Regulator, in four hours and a half, consumed 1680 feet of gas; showing a saving of 760 feet, or about 31 per cent. The hours when the gas was lighted, were not those when there is usually the greatest pressure. An experiment made with a smaller number of burners at a time, when the pressure from the street was greater, indicates by calculations, a saving of 48½ per cent.

H. A. HOMES,

Albany, Feb. 6th, 1856. *Assistant Librarian.*

We, the undersigned, Trustees of the Capitol, and the new State Hall, having examined the accompanying report, (being the result of an experiment, authorized by us to be made in the State Library,

to test the utility of this Patent Gas Regulator,) hereby authorize the agent, Mr. Brown, to put them up in the State Capitol and the new State Hall.

H. J. RAYMOND,
Lieut. Governor.
J. T. HEADLEY,
Secy. of State.
S. B. CUSHING,
Attorney General.
O. ROBINSON,
Speaker of Assembly.

MANHATTAN GAS WORKS,
New York, Oct. 23, 1852.

DEAR SIR:—Enclosed I send you a certificate setting forth as briefly as I can the advantages of your admirable invention. I do not think it necessary to mention any experiments which I have made; Drs. Ellett, Torrey and Gibbs have a book full to be produced when needed. I will add here, however, to be used if you desire it, the result of an experiment made at these Works, and which can be repeated whenever desired.

With a street pressure of four and a half inches of water, and one burner near the governor, the pressure of the burner guage was seven-tenths. The governor remaining untouched, the number of lights was increased to 54, extending over a surface of several hundred feet, and the street pressure was reduced to two inches, and the pressure guage at the governor remained, as before, seven tenths.

Respectfully your ob't serv't,
CHARLES ROOME.

MANHATTAN GAS WORKS,
New York, Oct. 23, 1852.

The Gas Regulator is, in my opinion, the most valuable instrument for regulating the flow of gas to the burners that I have ever seen.

It is correct in principle, and will accomplish admirably the objects for which it was designed.

It will insure great steadiness in the lights, and as the pressure at the meter is, by this instrument, reduced considerably below that on the street mains, it will enable the consumer to gain an equal amount of light at a smaller expenditure for gas; for the less the pressure under which the gas is consumed, the greater is the amount of light obtained.

CHAS. ROOME,

Engineer M. Gas Light Co.

REPORT OF PROFESSORS TORREY, ELLETT & GIBBS.

We the undersigned, have made numerous experiments upon the Gas Regulator with the best instrumental means, and under circumstances the most favorable to test the practical working of it, and have been much gratified with the results obtained. We find them capable of regulating, with great precision, the pressure of the gas which supplies the burners, and of keeping it absolutoly uniform at any determined point below that exerted by the gas delivered from the streets. The introduction of this instrument, even if it were attended with no other advantage, would be most beneficial in producing a uniform consumption, instead of the variable one which has hitherto been a source of inconvenience and loss to the consumer.

But in another point of view, the economical vault of this instrument to the gas consumer is most striking. In consequence of the great length of mains connected with any extensive gas establishment, it is necessary, for the purpose of insuring a suffient supply, to remote consumers, to employ a force which delivers it at a much greater pressure than is advantageous for its economical consumption.

We have satisfied ourselves by many trials, that as a general rule, three cubic feet of gas burned at the pressure of five tenths of an inch, will burn as long a time, and give a quantity of light equal to that of four cubic feet burned at a pressure of one-and-five-tenth inches, which is a fair average pressure for street delivery; and as a general result, the employment of a lower pressure than that at which the gas is delivered to the consumer will produce a great saving to. This saving is secured by the Gas Regulator.

JOHN TORREY,

Prof. of Chemistry, College of Physicians and Surgeons.

WILLIAM H. ELLETT, Prof. of Chemistry, &c.

WOLCOTT GIBBS,

Prof. of Chemistry and Physics in the Free Academy.

(*From the Scientific American.*)

PATENT GAS REGULATOR.

On Wednesday, last week, in company with J. Mowton, Esq., the Manager and Engineer of the New York Gas Light Company, Samuel Down, Esq., Gas Meter Manufacturer, and others, we witnessed the successful operation of the Gas Regulator. The exhibition took place in the Gas Meter Manufactory of Samuel Down, at the foot of 22nd street, North River, this city—Mr. Down conducting the experiments.

The object of the apparatus is to regulate the supply of gas to burners, and render it uniform though the pressure in the main or street pipe may be unequal or irregular. We saw the Regulator tested with a guage on the main and another on the burner pipe, and it operated correctly, although the pressure on the main guage was purposely made to vary considerably. We could perceive no difference in the pressure when one or the whole of the lights were burning—or when two or more were shut off—it operated accurately under every test. This Gas Regulator is so constructed that it will not clog if any tar should pass over, a fault belonging to other Regulators that have heretofore been used. When it is put into operation it will continue to work without interruption. Applied to a house where gas is consumed, the supply to the burners is uniformly regulated at any pressure below that of the street, consequently it will save a great expense to consumers, as much loss is, in general, caused by the irregular pressure of gas in the street pipes.

A high pressure on a burner, while it wastes the gas, produces a feeble light; whereas, a properly reguluted pressure on the burner, while it saves gas, produces a softer and better light.

The Regulator is very simple and neat in construction, not liable to get out of order, and Professors Torrey and Gibbs, and other Chemists of this city, who have witnessed its operations, have expressed their opinions commendatory of it. Patents are now being taken for it in Great Britain, France, and other countries in Europe, and it appears to us, that it ought and will win its way into general use.

66 State Street.,

Boston, June 18, 1855.

The undersigned have examined the Gas Regulator and witnessed its operation. It fully answers the purpose for which it is intended,

and we have no hesitation in recommending its adoption by all consumers of gas.

BLAKE & DARRACOTT,

Gas Engineers.

In an examination recently made of the Gas Regulator, I have found that the *true* principle of balancing and adjusting an unequal flow of gas has been applied to it in a most simple manner. The instrument resulting from a combination of a few parts only, proves *efficient* and *reliable* when subjected to the test of extreme and sudden variations of pressure, as well as copious flow of gas.

Its simplicity of construction removes risk of derangement to the moving parts, while some peculiar adaptions, calculated to facilitate the removeal of any condensed matter, enhance its value, and give to it an universality of application.

The regulating of the supply of gas is important on economical grounds, and should engage the attention of every consumer, and I confidently recommend this simple invention for this purpose as worthy of public patronage. Respectfully,

A. A. HAYES,

16 Boylston Street, Assayer to the State of Mass.

Boston, June 18, 1855.

TROY, Dec. 28, 1855.

From a series of experiments made with and without the Gas Regulator, at the Troy Union R. R. Depot, I find the result most satisfactory.

The amount of gas consumed from the 27th of Nov. to Dec. 7th, (10 days) without the Reglator, was 6400 feet, an average of 640 feet per day.

From Dec. 7th, to Dec. 17th, (10 days) with the Regulator, the amount consumed was 3700 feet, being 370 feet per day, or 2700 feet less in ten days with the Regulator than without it.

From all the experiments made I am fully satisfied of its utility, and most cordially recommend it to all consumers of gas.

Respecfully, Yours, A. McCOY,

Superintendent Troy Union R. R.